SEQUENCE LISTING

```
<110> INCYTE GENOMICS, INC.
             YUE, Henry
             BANDMAN, Olga
             TANG, Y. Tom
             BAUGHN, Mariah R.
             AZIMZAI, Yalda
             LU, Dyung Aina M.
       <120> HUMAN CHAPERONE PROTEINS
       <130> PF-0728 PCT
       <140> To Be Assigned
       <141> Herewith
       <150> 60/146,908; 60/160,924
       <151> 1999-08-03; 1999-10-22
       <160> 22
       <170> PERL Program
       <210> 1
<211> 170
<212> PRT
       <213> Homo sapiens
       <220>
اله.
       <221> misc_feature
       <223> Incyte ID No: 723593CD1
IU
       <400> 1
Ē
       Met Ser His Arg Thr Ser Ser Thr Phe Arg Ala Glu Arg Ser Phe
1
                                             10
                                                                 15
į±
       His Ser Ser Ser Ser Ser Ser Ser Ser Thr Ser Ser Ser Ala
Ш
                        20
                                             25
                                                                  30
       Ser Arg Ala Leu Pro Ala Gln Asp Pro Pro Met Glu Lys Ala Leu
m
                        35
                                             40
                                                                  45
Ser Met Phe Ser Asp Asp Phe Gly Ser Phe Met Arg Pro His Ser
Ш
                        50
                                             55
                                                                  60
       Glu Pro Leu Ala Phe Pro Ala Arg Pro Gly Gly Ala Gly Asn Ile
                        65
                                             70
                                                                  75
       Lys Thr Leu Gly Asp Ala Tyr Glu Phe Ala Val Asp Val Arg Asp
                        80
                                             85
                                                                  90
       Phe Ser Pro Glu Asp Ile Ile Val Thr Thr Ser Asn Asn His Ile
                        95
                                            100
       Glu Val Arg Ala Glu Lys Leu Ala Ala Asp Gly Thr Val Met Asn
                       110
                                            115
                                                                 120
       Thr Phe Ala His Lys Cys Gln Leu Pro Glu Asp Val Asp Pro Thr
                       125
                                            130
                                                                 135
       Ser Val Thr Ser Ala Leu Arg Glu Asp Gly Ser Leu Thr Ile Arg
                                            145
                                                                 150
                       140
       Ala Arg Arg His Pro His Thr Glu His Val Gln Gln Thr Phe Arg
                       155
                                            160
                                                                 165
       Thr Glu Ile Lys Ile
                       170
       <210> 2
       <211> 304
       <212> PRT
       <213> Homo sapiens
       <220>
       <221> misc_feature
       <223> Incyte ID No: 1708350CD1
```

```
<400> 2
 Met Ala Val Thr Lys Glu Leu Leu Gln Met Asp Leu Tyr Ala Leu
                                       10
                                                            15
 Leu Gly Ile Glu Glu Lys Ala Ala Asp Lys Glu Val Lys Lys Ala
                  20
                                                            30
 Tyr Arg Gln Lys Ala Leu Ser Cys His Pro Asp Lys Asn Pro Asp
                  35
                                       40
 Asn Pro Arg Ala Ala Glu Leu Phe His Gln Leu Ser Gln Ala Leu
                                       55
 Glu Val Leu Thr Asp Ala Ala Ala Arg Ala Ala Tyr Asp Lys Val
                  65
                                       70
                                                            75
 Arg Lys Ala Lys Lys Gln Ala Ala Glu Arg Thr Gln Lys Leu Asp
                  80
                                       85
                                                            90
 Glu Lys Arg Lys Lys Val Lys Leu Asp Leu Glu Ala Arg Glu Arg
                  95
                                      100
                                                           105
 Gln Ala Gln Ala Gln Glu Ser Glu Glu Glu Glu Glu Ser Arg Ser
                 110
                                      115
                                                           120
 Thr Arg Thr Leu Glu Gln Glu Ile Glu Arg Leu Arg Glu Glu Gly
                 125
                                      130
                                                          135
 Ser Arg Gln Leu Glu Gln Gln Arg Leu Ile Arg Glu Gln Ile
                 140
                                      145
                                                          150
Arg Gln Glu Arg Asp Gln Arg Leu Arg Gly Lys Ala Glu Asn Thr
                 155
                                      160
                                                          165
Glu Gly Gln Gly Thr Pro Lys Leu Lys Leu Lys Trp Lys Cys Lys
                 170
                                      175
                                                          180
Lys Glu Asp Glu Ser Lys Gly Gly Tyr Ser Lys Asp Val Leu Leu
                 185
                                      190
                                                          195
Arg Leu Leu Gln Lys Tyr Gly Glu Val Leu Asn Leu Val Leu Ser
                 200
                                      205
                                                          210
Ser Lys Lys Pro Gly Thr Ala Val Val Glu Phe Ala Thr Val Lys
                 215
                                      220
                                                          225
Ala Ala Glu Leu Ala Val Gln Asn Glu Val Gly Leu Val Asp Asn
                 230
                                      235
                                                          240
Pro Leu Lys Ile Ser Trp Leu Glu Gly Gln Pro Gln Asp Ala Val
                 245
                                      250
                                                          255
Gly Arg Ser His Ser Gly Leu Ser Lys Gly Ser Val Leu Ser Glu
                 260
                                      265
                                                          270
Arg Asp Tyr Glu Ser Leu Val Met Met Arg Met Arg Gln Ala Ala
                 275
                                     280
                                                          285
Glu Arg Gln Gln Leu Ile Ala Arg Met Gln Gln Glu Asp Gln Glu
                                     295
Gly Pro Pro Thr
<210> 3
<211> 483
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1742550CD1
<400> 3
Met Ala Lys Asp Ala Ser Ser Ala Asp Ile Arg Lys Ala Tyr Arg
                                      10
Lys Leu Ser Leu Thr Leu His Pro Asp Lys Asn Lys Asp Glu Asn
                 20
                                                           30
Ala Glu Thr Gln Phe Arg Gln Leu Val Ala Ile Tyr Glu Val Leu
                 35
                                      40
                                                           45
Lys Asp Asp Glu Arg Arg Gln Arg Tyr Asp Asp Ile Leu Ile Asn
                 50
                                      55
Gly Leu Pro Asp Trp Arg Gln Pro Val Phe Tyr Tyr Arg Arg Val
                 65
                                      70
Arg Lys Met Ser Asn Ala Glu Leu Ala Leu Leu Leu Phe Ile Ile
                 80
                                      85
                                                           90
Leu Thr Val Gly His Tyr Ala Val Val Trp Ser Ile Tyr Leu Glu
```

100

105

```
Lys Gln Leu Asp Glu Leu Leu Ser Arg Lys Lys Arg Glu Lys Lys
                 110
                                      115
 Lys Lys Thr Gly Ser Lys Ser Val Asp Val Ser Lys Leu Gly Ala
                 125
                                      130
 Ser Glu Lys Asn Glu Arg Leu Leu Met Lys Pro Gln Trp His Asp
                 140
                                      145
                                                           150
 Leu Leu Pro Cys Lys Leu Gly Ile Trp Phe Cys Leu Thr Leu Lys
                 155
                                      160
                                                           165
 Ala Leu Pro His Leu Ile Gln Asp Ala Gly Gln Phe Tyr Ala Lys
                 170
                                      175
                                                           180
 Tyr Lys Glu Thr Arg Leu Lys Glu Lys Glu Asp Ala Leu Thr Arg
                 185
                                      190
                                                           195
 Thr Glu Leu Glu Thr Leu Gln Lys Gln Lys Lys Val Lys Lys Pro
                 200
                                      205
                                                           210
 Lys Pro Glu Phe Pro Val Tyr Thr Pro Leu Glu Thr Thr Tyr Ile
                 215
                                      220
                                                          225
 Gln Ser Tyr Asp His Gly Thr Ser Ile Glu Glu Ile Glu Gln
                 230
                                      235
                                                          240
 Met Asp Asp Trp Leu Glu Asn Arg Asn Arg Thr Gln Lys Lys Gln
                 245
                                      250
                                                          255
 Ala Pro Glu Trp Thr Glu Glu Asp Leu Ser Gln Leu Thr Arg Ser
                 260
                                      265
                                                          270
Met Val Lys Phe Pro Gly Gly Thr Pro Gly Arg Trp Glu Lys Ile
                 275
                                      280
Ala His Glu Leu Gly Arg Ser Val Thr Asp Val Thr Thr Lys Ala
                 290
                                      295
                                                          300
Lys Gln Leu Lys Asp Ser Val Thr Cys Ser Pro Gly Met Val Arg
                 305
                                      310
                                                          315
Leu Ser Glu Leu Lys Ser Thr Val Gln Asn Ser Arg Pro Ile Lys
                 320
                                      325
                                                          330
Thr Ala Thr Thr Leu Pro Asp Asp Met Ile Thr Gln Arg Glu Asp
                 335
                                      340
                                                          345
Ala Glu Gly Val Ala Ala Glu Glu Glu Glu Gly Asp Ser Gly
                 350
                                     355
                                                          360
Glu Gln Glu Thr Gly Ala Thr Asp Ala Arg Pro Arg Arg Arg Lys
                 365
                                     370
Pro Ala Arg Leu Leu Glu Ala Thr Ala Lys Pro Glu Pro Glu Glu
                 380
                                     385
                                                          390
Lys Ser Arg Ala Lys Arg Gln Lys Asp Phe Asp Ile Ala Glu Gln
                395
                                      400
                                                          405
Asn Glu Ser Ser Asp Glu Glu Ser Leu Arg Lys Glu Arg Ala Arg
                410
                                     415
                                                          420
Ser Ala Glu Glu Pro Trp Thr Gln Asn Gln Gln Lys Leu Leu Glu
                 425
                                     430
                                                          435
Leu Ala Leu Gln Gln Tyr Pro Arg Gly Ser Ser Asp Arg Trp Asp
                440
                                     445
                                                          450
Lys Ile Ala Arg Cys Val Pro Ser Lys Ser Lys Glu Asp Cys
                                                          Ile
                455
                                     460
                                                          465
Ala Arg Tyr Lys Leu Leu Val Glu Leu Val Gln Lys Lys Lys Gln
                470
Ala Lys Ser
<210> 4
<211> 226
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1919301CD1
<400> 4
Met Ala Ala Met Arg Trp Arg Trp Trp Gln Arg Leu Leu Pro Trp
                                      10
Arg Leu Leu Gln Ala Arg Gly Phe Pro Gln Asn Ser Ala Pro Ser
                                      25
Leu Gly Leu Gly Ala Arg Thr Tyr Ser Gln Gly Asp Cys Ser Tyr
```

```
Ser Arg Thr Ala Leu Tyr Asp Leu Leu Gly Val Pro Ser Thr Ala
                  50
                                       55
Thr Gln Ala Gln Ile Lys Ala Ala Tyr Tyr Arg Gln Cys Phe Leu
                  65
                                       70
                                                           75
 Tyr His Pro Asp Arg Asn Ser Gly Ser Ala Glu Ala Ala Glu Arg
                  80
                                       85
 Phe Thr Arg Ile Ser Gln Ala Tyr Val Val Leu Gly Ser Ala Thr
                  95
                                      100
                                                          105
Leu Arg Arg Lys Tyr Asp Arg Gly Leu Leu Ser Asp Glu Asp Leu
                                      115
                                                          120
Arg Gly Pro Gly Val Arg Pro Ser Arg Thr Pro Ala Pro Asp Pro
                 125
                                      130
                                                          135
Gly Ser Pro Arg Thr Pro Pro Pro Thr Ser Arg Thr His Asp Gly
                 140
                                      145
                                                          150
Ser Arg Ala Ser Pro Gly Ala Asn Arg Thr Met Phe Asn Phe Asp
                 155
                                      160
                                                          165
Ala Phe Tyr Gln Ala His Tyr Gly Glu Gln Leu Glu Arg Glu Arg
                 170
                                     175
                                                          180
Arg Leu Arg Ala Arg Arg Glu Ala Leu Arg Lys Arg Gln Glu Tyr
                 185
                                     190
                                                          195
Arg Ser Met Lys Gly Leu Arg Trp Glu Asp Thr Arg Asp Thr Ala
                 200
                                     205
                                                          210
Ala Ile Phe Leu Ile Phe Ser Ile Phe Ile Ile Gly Phe
                                                          Tvr
                 215
                                     220
Ile
<210> 5
<211> 112
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 2012055CD1
<400> 5
Met Met Ala Val Glu Gln Met Pro Lys Lys Asp Trp Tyr Ser Ile
                                      10
Leu Gly Ala Asp Pro Ser Ala Asn Ile Ser Asp Leu Lys Gln Lys
                  20
                                                           30
Tyr Gln Lys Leu Ile Leu Met Tyr His Pro Asp Lys Gln Ser Thr
                  35
                                      40
                                                           45
Asp Val Pro Ala Gly Thr Val Glu Glu Cys Val Gln Lys Phe Ile
                 50
                                      55
                                                           60
Glu Ile Asp Gln Ala Trp Lys Ile Leu Gly Asn Glu Glu Thr Lys
                 65
                                      70
Arg Glu Tyr Asp Leu Gln Arg Cys Glu Asp Asp Leu Arg Asn Val
                 80
                                      85
Gly Pro Val Asp Ala Gln Val Tyr Leu Glu Glu Met Ser Trp Asn
                 95
                                     100
                                                          105
Glu Val Thr Ser Gln Arg Gln
                110
<210> 6
<211> 358
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 2238062CD1
<400> 6
Met Ala Ala Thr Leu Gly Ser Gly Glu Arg Trp Thr Glu Ala Tyr
                                      10
                                                           15
Ile Asp Ala Val Arg Arg Asn Lys Tyr Pro Glu Asp Thr Pro Pro
```

25

Ш

WO 01/09178 PCT/US00/21313

```
Glu Ser His Asp Pro Cys Gly Cys Cys Asn Cys Met Lys Ala Gln
 Lys Glu Lys Lys Ser Glu Asn Glu Trp Thr Gln Thr Arg Gln Gly
                  50
                                       55
                                                            60
 Glu Gly Asn Ser Thr Tyr Ser Glu Glu Gln Leu Leu Gly Val Gln
                  65
                                       70
                                                            75
 Arg Ile Lys Lys Cys Arg Asn Tyr Tyr Glu Ile Leu Gly Val Ser
                  80
                                       85
                                                            90
 Arg Asp Ala Ser Asp Glu Glu Leu Lys Lys Ala Tyr Arg Lys Leu
                                      100
 Ala Leu Lys Phe His Pro Asp Lys Asn Cys Ala Pro Gly Ala Thr
                 110
                                      115
                                                          120
 Asp Ala Phe Lys Ala Ile Gly Asn Ala Phe Ala Val Leu Ser Asn
                 125
                                      130
                                                          135
 Pro Asp Lys Arg Leu Arg Tyr Asp Glu Tyr Gly Asp Glu Gln Val
                 140
                                      145
                                                          150
Thr Phe Thr Ala Pro Arg Ala Arg Pro Tyr Asn Tyr Tyr Arg Asp
                 155
                                      160
                                                          165
Phe Glu Ala Asp Ile Thr Pro Glu Glu Leu Phe Asn Val Phe Phe
                 170
                                      175
                                                          180
Gly Gly His Phe Pro Thr Gly Asn Ile His Met Phe Ser Asn Val
                 185
                                      190
                                                          195
Thr Asp Asp Thr Tyr Tyr Arg Arg Arg His Arg His Glu Arg
                 200
                                      205
                                                          210
Thr Gln Thr Gln Lys Glu Glu Glu Glu Lys Pro Gln Thr Thr
                 215
                                      220
                                                          225
Tyr Ser Ala Phe Ile Gln Leu Leu Pro Val Leu Val Ile Val Ile
                 230
                                      235
                                                          240
Ile Ser Val Ile Thr Gln Leu Leu Ala Thr Asn Pro Pro Tyr Ser
                 245
                                      250
                                                          255
Leu Phe Tyr Lys Ser Thr Leu Gly Tyr Thr Ile Ser Arg Glu Thr
                 260
                                      265
                                                          270
Gln Asn Leu Gln Val Pro Tyr Phe Val Asp Lys Asn Phe Asp Lys
                 275
                                     280
                                                          285
Ala Tyr Arg Gly Ala Ser Leu His Asp Leu Glu Lys Thr Ile Glu
                 290
                                      295
                                                          300
Lys Asp Tyr Ile Asp Tyr Ile Gln Thr Ser Cys Trp Lys Glu Lys
                305
                                     310
                                                          315
Gln Gln Lys Ser Glu Leu Thr Asn Leu Ala Gly Leu Tyr Arg Asp
                 320
                                     325
                                                          330
Glu Arg Leu Lys Gln Lys Ala Glu Ser Leu Lys Leu Glu Asn Cys
                335
                                     340
Glu Lys Leu Ser Lys Leu Ile Gly Leu Arg Arg Gly Gly
                 350
<210> 7
<211> 928
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1825012CD1
<400> 7
Met Gly Gly Ser Ala Ser Ser Gln Leu Asp Glu Gly Lys Cys Ala
                                      10
                                                           15
Tyr Ile Arg Gly Lys
                    Thr Glu Ala Ala Ile Lys Asn Phe Ser Pro
                 20
                                      25
                                                           3.0
Tyr Tyr Ser Arg Gln Tyr Ser Val Ala Phe Cys Asn His Val Arg
                                      40
                                                           45
Thr Glu Val Glu Gln Gln Arg Asp Leu Thr Ser Gln Phe Leu Lys
                 50
                                      55
                                                           60
Thr Lys Pro Pro Leu Ala Pro Gly Thr Ile Leu Tyr Glu Ala Glu
                 65
                                      70
                                                           75
Leu Ser Gln Phe Ser Glu Asp Ile Lys Lys Trp Lys Glu Arg
                                                         Tyr
```

Val Val Val Lys Asn Asp Tyr Ala Val Glu Ser Tyr Glu Asn Lys

80

				0.5										
Glu	ı Ala	Туг	Glr	95 Arg 110	gly	Ala	Ala	Pro	100 Lys 115	Cys	Arg	Ile	Leu	
Ala	Gly	Gly	Lys		Leu	Thr	Ser	Glu		Glu	Tyr	Asn	Leu	120 Leu 135
Ser	Asp	Arg	His	Phe 140	Pro	Asp	Pro	Leu		Ser	Ser	Glu	Lys	Glu 150
	Thr			155)				Lys 160	Glu				Tyr 165
	Trp			170					175					Glu 180
	Ala			185					190					Val
	His			200					205					210
	Ala			215					220					225
	Tyr			230					235					240
	Ser			245					250					255
	Leu			260					265					270
	Trp			275					280					285
	Val			290					295					300
	Thr			305					310					315
	Val			320					325					330
	Ala			335					340					345
	Leu Phe			350					355					360
	Ser			365					370					375
	His			380					385					390
	Glu			395					400					405
	Asp			410					415					420
	Gln			425					430					435
	Phe			440					445					450
	Ser			455					460					465
	Lys			470					475					480 Ile
	Gln			485					490					495
	Leu			500					505					510
	Ile			515					520					525
	Glu			530					535					540
	Ile			545 Ala					550					555
	Asn			560 Leu					565					570
	Lys			Thr					580 Ala					585
				590					595				-	600

```
Ala Ser Ala Ile Leu Pro Gly Val Leu Gly Ser Glu Thr Leu Ser
                 605
                                      610
 Asn Glu Val Phe Gln Glu Ser Glu Glu Glu Lys Gln Pro Glu Val
                 620
                                      625
                                                          630
 Pro Ser Ser Leu Ala Lys Gly Glu Ser Leu Ser Leu Pro Gly Pro
                 635
                                      640
 Ser Pro Pro Pro Asp Gly Thr Glu Gln Val Ile Ile Ser Arg Val
                 650
                                      655
                                                          660
Asp Asp Pro Val Val Asn Pro Val Ala Thr Glu Asp Thr Ala Gly
                 665
                                      670
                                                          675
Leu Pro Gly Thr Cys Ser Ser Glu Leu Glu Phe Gly Gly Thr Leu
                 680
                                     685
                                                          690
Glu Asp Glu Glu Pro Ala Gln Glu Glu Pro Glu Pro Ile Thr Ala
                 695
                                     700
                                                          705
Ser Gly Ser Leu Lys Ala Leu Arg Lys Leu Leu Thr Ala Ser Val
                 710
                                     715
                                                          720
Glu Val Pro Val Asp Ser Ala Pro Val Met Glu Glu Asp Thr Asn
                 725
                                     730
                                                          735
Gly Glu Ser His Val Pro Gln Glu Asn Glu Glu Glu Glu Lys
                 740
                                     745
                                                          750
Glu Pro Ser Gln Ala Ala Ile His Pro Asp Asn Cys Glu Glu
                 755
                                     760
                                                          765
Ser Glu Val Ser Glu Arg Glu Ala Gln Pro Pro Cys Pro Glu Ala
                 770
                                     775
                                                          780
His Gly Glu Glu Leu Gly Gly Phe Pro Glu Val Gly Ser Pro Ala
                 785
                                      790
                                                          795
Ser Pro Pro Ala Ser Gly Gly Leu Thr Glu Glu Pro Leu Gly Pro
                 800
                                     805
                                                          810
Met Glu Gly Glu Leu Pro Gly Glu Ala Cys Thr Leu Thr Ala His
                 815
                                     820
                                                          825
Glu Gly Arg Gly Gly Lys Cys Thr Glu Glu Gly Asp Ala Ser Gln
                 830
                                     835
                                                          840
Gln Glu Gly Cys Thr Leu Gly Ser Asp Pro Ile Cys Leu Ser Glu
                 845
                                     850
                                                          855
Ser Gln Val Ser Glu Glu Glu Glu Met Gly Gly Gln Ser Ser
                860
                                     865
                                                          870
Ala Ala Gln Ala Thr Ala Ser Val Asn Ala Glu Glu Ile Lys Val
                875
                                     880
                                                          885
Ala Arg Ile His Glu Cys Gln Trp Val Val Glu Asp Ala Pro Asn
                890
                                     895
                                                          900
Pro Asp Val Leu Leu Ser His Lys Asp Asp Val Lys Glu Gly Glu
                905
                                     910
Gly Gly Gln Glu Ser Phe Pro Glu Leu Pro Ser Glu Glu
                920
<210> 8
<211> 159
<212> PRT
<213 > Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1906464CD1
<400> 8
Met Gln Arg Val Gly Asn Thr Phe Ser Asn Glu Ser Arg Val Ala
                                      10
Ser Arg Cys Pro Ser Val Gly Leu Ala Glu Arg Asn Arg Val Ala
                 20
                                      25
Thr Met Pro Val Arg Leu Leu Arg Asp Ser Pro Ala Ala Gln Glu
                                                           45
Asp Asn Asp His Ala Arg Asp Gly Phe Gln Met Lys Leu Asp Ala
                 50
                                      55
                                                           60
His Gly Phe Ala Pro Glu Glu Leu Val Val Gln Val Asp Gly Gln
                 65
                                      70
Trp Leu Met Val Thr Gly Gln Gln Leu Asp Val Arg Asp Pro
                 80
                                      85
Glu Arg Val Ser Tyr Arg Met Ser Gln Lys Val His Arg Lys Met
```

```
100
                                                          105
Leu Pro Ser Asn Leu Ser Pro Thr Ala Met Thr Cys Cys Leu Thr
                 110
                                      115
                                                          120
Pro Ser Gly Gln Leu Trp Val Arg Gly Gln Cys Val Ala Leu Ala
                 125
                                      130
                                                          135
Leu Pro Glu Ala Gln Thr Gly Pro Ser Pro Arg Leu Gly Ser Leu
                 140
                                      145
Gly Ser Lys Ala Ser Asn Leu Thr Arg
                 155
<210> 9
<211> 235
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1979146CD1
<400> 9
Met Trp Arg Gly Arg Ala Gly Ala Leu Leu Arg Val Trp Gly Phe
 1
                                      10
                                                           15
Trp Pro Thr Gly Val Pro Arg Arg Pro Leu Ser Cys Asp Ala
                  20
                                       25
                                                           30
Ala Ser Gln Ala Gly Ser Asn Tyr Pro Arg Cys Trp Asn Cys Gly
                  35
                                      40
                                                           45
Gly Pro Trp Gly Pro Gly Arg Glu Asp Arg Phe Phe Cys Pro Gln
                  50
                                       55
Cys Arg Ala Leu Gln Ala Pro Asp Pro Thr Arg Asp Tyr Phe Ser
                  65
                                      70
                                                           75
Leu Met Asp Cys Asn Arg Ser Phe Arg Val Asp Thr Ala Asn Val
                  80
                                      85
                                                           90
Gln His Arg Tyr Gln Gln Leu Gln Arg Leu Val His Pro Asp Phe
                  95
                                     100
                                                          1.05
Phe Ser Gln Arg Ser Gln Thr Glu Lys Asp Phe Ser Glu Lys His
                 110
                                     115
                                                          120
Ser Thr Leu Val Asn Asp Ala Tyr Lys Thr Leu Leu Ala Pro Leu
                 125
                                     130
                                                          135
Ser Arg Gly Leu Tyr Leu Leu Lys Leu His Gly Ile Glu Ile Pro
                 140
                                     145
                                                          150
Glu Arg Thr Asp Tyr Glu Met Asp Arg Gln Phe Leu Ile Glu Ile
                 155
                                     160
                                                          165
Met Glu Ile Asn Glu Lys Leu Ala Glu Ala Glu Ser Glu Ala Ala
                 170
                                     175
Met Lys Glu Ile Glu Ser Ile Val Lys Ala Lys Gln Lys Glu Phe
                 185
                                     190
                                                          195
Thr Asp Asn Val Ser Ser Ala Phe Glu Gln Asp Asp Phe Glu Glu
                 200
                                     205
                                                          210
Ala Lys Glu Ile Leu Thr Lys Met Arg Tyr Phe Ser Asn Ile Glu
                 215
                                     220
Glu Lys Ile Lys Leu Lys Lys Ile Pro Leu
                 230
                                     235
<210> 10
<211> 260
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 5680480CD1
<400> 10
Met Gly Leu Leu Asp Leu Cys Glu Glu Val Phe Gly Thr Ala Asp
  1
                   5
                                      10
                                                           15
Leu Tyr Arg Val Leu Gly Val Arg Arg Glu Ala Ser Asp Gly Glu
                 20
                                      25
                                                           30
Val Arg Arg Gly Tyr His Lys Val Ser Leu Gln Val His Pro Asp
                 35
                                      40
```

```
Arg Val Gly Glu Gly Asp Lys Glu Asp Ala Thr Arg Arg Phe Gln
                  50
                                       55
Ile Leu Gly Lys Val Tyr Ser Val Leu Ser Asp Arg Glu Gln Arg
                  65
                                      70
Ala Val Tyr Asp Glu Gln Gly Thr Val Asp Glu Asp Ser Pro Val
                  80
                                      85
Leu Thr Gln Asp Arg Asp Trp Glu Ala Tyr Trp Arg Leu Leu Phe
                  95
                                     100
                                                          105
Lys Lys Ile Ser Leu Glu Asp Ile Gln Ala Phe Glu Lys Thr Tyr
                 110
                                     115
                                                          120
Lys Gly Ser Glu Glu Glu Leu Ala Asp Ile Lys Gln Ala Tyr Leu
                 125
                                     130
                                                          135
Asp Phe Lys Gly Asp Met Asp Gln Ile Met Glu Ser Val Leu Cys
                 140
                                     145
                                                          150
Val Gln Tyr Thr Glu Glu Pro Arg Ile Arg Asn Ile Ile Gln Gln
                 155
                                     160
                                                          165
Ala Ile Asp Ala Gly Glu Val Pro Ser Tyr Asn Ala Phe Val Lys
                 170
                                     175
                                                          180
Glu Ser Lys Gln Lys Met Asn Ala Arg Lys Arg Arg Ala Gln Glu
                 185
                                     190
                                                          195
Glu Ala Lys Glu Ala Glu Met Ser Arg Lys Glu Leu Gly Leu Asp
                 200
                                     205
                                                          210
Glu Gly Val Asp Ser Leu Lys Ala Ala Ile Gln Ser Arg Gln Lys
                 215
                                     220
                                                          225
Asp Arg Gln Lys Glu Met Asp Asn Phe Leu Ala Gln Met Glu Ala
                 230
                                     235
                                                          240
Lys Tyr Cys Lys Ser Ser Lys Gly Gly Lys Lys Ser Ala Leu
                 245
                                     250
                                                          255
Lys Lys Glu Lys Lys
<210> 11
<211> 269
<212> PRT
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1459372CD1
<400> 11
Met Ala Gly Val Pro Glu Asp Glu Leu Asn Pro Phe His Val Leu
  1
                                      10
Gly Val Glu Ala Thr Ala Ser Asp Val Glu Leu Lys Lys Ala Tyr
                 20
                                      25
Arg Gln Leu Ala Val Met Val His Pro Asp Lys Asn His His Pro
                 35
                                      40
Arg Ala Glu Glu Ala Phe Lys Val Leu Arg Ala Ala Trp Asp Ile
                 50
                                      55
                                                           60
Val Ser Asn Ala Glu Lys Arg Lys Glu Tyr Glu Met Lys Arg Met
                                      70
                                                           75
Ala Glu Asn Glu Leu Ser Arg Ser Val Asn Glu Phe Leu Ser Lys
                 80
                                      85
                                                           90
Leu Gln Asp Asp Leu Lys Glu Ala Met Asn Thr Met Met Cys Ser
                 95
                                     100
                                                          105
Arg Cys Gln Gly Lys His Arg Arg Phe Glu Met Asp Arg Glu Pro
                110
                                     115
                                                          120
Lys Ser Ala Arg Tyr Cys Ala Glu Cys Asn Arg Leu His Pro Ala
                125
                                     130
                                                          135
Glu Glu Gly Asp Phe Trp Ala Glu Ser Ser Met Leu Gly Leu Lys
                140
                                     145
                                                          150
Ile Thr Tyr Phe Ala Leu Met Asp Gly Lys Val Tyr Asp Ile Thr
                155
                                     160
Glu Trp Ala Gly Cys Gln Arg Val Gly Ile Ser Pro Asp Thr His
                170
                                     175
Arg Val Pro Tyr His Ile Ser Phe Gly Ser Arg Ile Pro Gly Thr
                185
                                     190
Arg Gly Arg Gln Arg Ala Thr Pro Asp Ala Pro Pro Ala Asp Leu
```

m

Ш

```
200
                                           205
                                                                  210
 Gln Asp Phe Leu Ser Arg Ile Phe Gln Val Pro Pro Gly Gln Met
                   215
                                           220
                                                                  225
 Pro Asn Gly Asn Phe Phe Ala Ala Pro Gln Pro Ala Pro Gly Ala
                   230
                                           235
                                                                  240
 Ala Ala Ala Ser Lys Pro Asn Ser Thr Val Pro Lys Gly Glu Ala
                   245
                                           250
                                                                  255
 Lys Pro Lys Arg Arg Lys Lys Val Arg Arg Pro Phe Gln Arg
                   260
                                           265
 <210> 12
 <211> 1550
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc_feature
 <223> Incyte ID No: 723593CB1
<400> 12
gtcggagcct ggcacgctcg cccagaggcc tgcgcccaca ccctctcctg tccagccctc 60
gcccgcctgg gcagggcccg gcgccgtccg tggatgagcc acagaacctc ttccaccttc 120
cgagcggaga gaagtttcca ttcctcttct tcttcctcct cctcttccac ctcctcctcg 180 gcctcccgtg ccctcccggc ccaggacccg cccatggaga aggccctgag catgttttcc 240
gatgactttg gcagcttcat gcggccccac tcggagcccc tggccttccc agcccgcccc 300
ggtggggcag gcaacatcaa gaccctagga gacgcctatg agtttgcggt ggacgtgaga 360 gacttctcac ctgaagacat cattgtcacc acctccaaca accacatcga ggtgcgggct 420
gagaagetgg eggetgaegg caetgteatg aacacetteg etcacaagtg ecagetgeeg 480
gaggacgtgg accegacgte ggtgaceteg getetgeggg aggacggeag ceteactate 540
cgggcacggc gtcacccgca tacagaacac gtccagcaga ccttccggac ggagatcaaa 600 atctgagtgc ctctcccttc cctttccctg tcccccgcc ccacgcctgc cagcaaagcc 660 tcgctaaccc cattacaaca gctccaggac atctcagccc aggttctagc ccccacgcac 720
cccagacccc aggtggacca tcctcccaaa ctagggccct ccactctatc cagggcaggc 780
cagggactee etggeetgae acatgatgee cagattteag atttggeete egteaettaa 840
tccagagtac aggggctggg gtcagggaag gaagatctaa agaacccact gtgggtcagg 900 ggaatgggac cagcaggaca tatgggcaag ctctgcagga cagacagaca gacaaaccct 960
ctgatctatg aagtctctgc agggcaaggg gaccagggac ctggaaccct cttggccaag 1020
gggagtggga gggacagagg gaaggtcaca ggcaagggtg cctatctaag tggaactaat 1080
tgcccgaggg ctcagcaagg ccaagaggag acagccgtga cggtaaactt cccctctacc 1140
agectecaag ceccaegeca gegageagge tgeetgeeca eccegtgeec ceagecaget 1200
ggctgtgcca gggcagagcc atgccacatc tgtatataga tggggttttt ccaatacagc 1260
tggttegtga taaactgeat gaaacteetg eegteetgeg eetgetgggg eeteeaggea 1320
aggccacgtg gggttggggg tggggctggt cetteteet cecacaggee tgtgttettg 1380
gggctgctcc catgcagaca ggatcaccta acagagatgg aagccagggc atggatgggg 1440
ctttgggtcc tcaaggttgg acccagett cttgccacet tcccctccgg gcagtcaget 1500 ctccatccat cccctettt aatctatgaa tctatagget cggtgtgtgt 1550
<210> 13
<211> 1075
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1708350CB1
<400> 13
cagaacacaa ttcccagagg gctaggcgcc gctcggagcc tgcagtcctc acgcgcgctt 60
agactettgg gagttgtagt acgaatcegt caggeeggaa ceatggeagt gaccaaggag 120
ctcttacaga tggacctgta cgcgctgcta ggcattgagg agaaggcagc ggacaaagag 180
gtaaagaagg cgtataggca gaaggccctc tcctgccacc cagacaaaaa tccagataat 240
cccagagcag ctgaactett ccaccagett teteaggeet tggaggtget gaccgatget 300
gcagccaggg ctgcatatga caaggtcagg aaagccaaga agcaagcagc agagaggacc 360
cagaaacttg atgagaaaag gaagaaagtg aagcttgacc tggaggcccg ggagcggcag 420
gcccaggccc aggagagtga ggaggaagag gagagccgga gcaccaggac actagagcaa 480
gagategaac geetgagaga agagggttee eggeagetgg aggaacagea gaggeteate 540
cgggagcaga tacgccagga gcgtgaccag aggttgagag gaaaggcaga aaatactgaa 600
ggccaaggaa cccccaaact aaagctaaaa tggaagtgca agaaggagga tgagtcaaaa 660
```

```
ggtggctact ccaaagacgt cctcctacgg cttttgcaga agtatggtga ggttctcaac 720
ctggtgcttt ccagtaagaa gccaggcact gctgtggtgg agtttgcaac cgtcaaggca 780 gcggagctgg ctgtccagaa tgaagttggc ctggtggata accetctgaa gatttcctgg 840
ttggagggac agccccagga tgccgtgggc cgcagccact caggactgtc aaagggctca 900
gtgctgtcag agagggacta cgagagcctc gtcatgatgc gcatgcgcca ggcggccgag 960
cggcaacagc tgatcgcacg gatgcagcag gaagaccagg aggggccgcc tacgtagccc 1020 cagctccagc catccaccg tcagcccttt tcttcaacgt cgcgagataa attta 1075
<210> 14
<211> 1950
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1742550CB1
aagagageee gaggeaggta getgeagtte ceetecaaga ettetecaea eetgtttgae 60
caggtacaag atcaggcgcc ggggtcatct gttcactagg ccacggggtc aggacaagag 120 tcacccgcag ctctgaggcc agatggtaat tccaatcgcc tccccagttc agcagcgaac 180
ccagcaagac gaagataatt ttcgaaacat tcaggctcgg gagtagacgt cgcaatggag 240
tgctgtcctc gcggctttgg agccacgggg catggccaag gatgcatcat ctgcagacat 300
cagaaaagca tatcgtaagc tttcactaac tttacatcca gacaagaata aagatgaaaa 360
tgcagaaact cagtttagac aattggtggc catttatgaa gttttaaagg atgatgaacg 420
aaggcagagg tatgatgata ttctgatcaa tggacttcca gattggcgac agcctgtatt 480
ctactacagg egggtgagaa aaatgagcaa tgctgagctg gcattactct tgttcattat 540
teteacagtg ggteattatg etgtggtttg gteaatetae etggaaaaac aactggatga 600
actactaagt agaaaaaaga gagaaaagaa aaaaaagact ggcagcaaga gtgtggatgt 660
atcaaaactc ggtgcttcag aaaaaaatga aagattgctg atgaaaccac agtggcatga 720
tttgcttcca tgcaaactgg ggatttggtt ttgccttaca ctaaaagcat tacctcacct 780
catccaggat gctgggcagt tttatgctaa atataaagaa acaagattga aggaaaagga 840
agatgcactg actagaactg aacttgaaac acttcaaaaa cagaagaaag ttaaaaaacc 900
aaaacctgaa tttcctgtat acacaccttt agaaactaca tatattcagt cttatgatca 960
tggaacttcc atagaagaaa ttgaggaaca aatggatgat tggttggaaa acaggaaccg 1020
aacacagaaa aaacaggcac ctqaatqqac aqaaqaggac ctcagccaac tgacaaqaaq 1080
tatggttaag ttcccaggag ggactccagg tcgatgggaa aagattgccc acgaattggg 1140 tcgatctgtg acagatgtga caaccaaagc caagcaactg aaggattcag tgacctgctc 1200 cccaggaatg gttagactct ccgaactcaa atcgacagtt cagaattcca ggcccatcaa 1260
aacggccacc accttgcccg atgacatgat cacccagcga gaggacgcag agggggtggc 1320
ageggaggag gageaggagg gagacteegg tgageaggag aceggggeea etgatgeeeg 1380
geeteggagg eggaageeag ceaggetget ggaggetaca gegaageegg ageeagagga 1440 gaagteeaga gecaagegge agaaggaett tgacatagea gaacaaaaeg agteeagega 1500
cgaggagage etgagaaaag agagageteg gtetgeagag gageegtgga eteaaaatea 1560
acagaaactt ctggaactgg cgttgcagca gtacccaagg ggatcctctg accgctggga 1620
caaaatagcc agatgtgtcc cgtccaagag caaggaagac tgtatcgcta ggtacaagtt 1680
gctggttgaa ctggtccaaa agaaaaaca agctaaaagc tgaatattct gggagatgat 1740 gttcaccttc attttccaaa atgaatatct taaaaaatctt atgcagaaat ttgcattttg 1800
tacctcaata tttctacgtc atgtgcctta gtaaaaaaaa ataataaata aataaaagat 1860
gagtgttgtg ctaaaaaaaa aaaaaaaaaa aaaaaactcg gtcgcaagct tattcccttt 1920
agtgagggtt aattttagct tgcactggcc
<210> 15
<211> 1187
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1919301CB1
<400> 15
ctcttgcacc gcctgccgaa tcaattcaac atggcagcca tgcgctggcg atggtggcag 60
eggetgttae ettggaggtt getgeaggee egtggettte cacaaaatte tgeacecage 120
etgggeetag gagegaggae ttatteeeag ggegaetget egtattegeg eaeggegetg 180
tatgatetge teggegteec etecacagee aegeaggeec aaateaagge ggettaetae 240
cgtcagtgct ttctctacca cccggaccgc aactccggga gcgcggaggc cgccgagcgc 300
```

```
ttcacgcgca tctcccaggc ctacgtggtg ctgggcagtg ccaccctccg tcgcaagtat 360
 gatcgcggcc tactcagcga cgaggacctg cgcggacctg gcgtccggcc ctccaggacg 420
 cccgcacccg accccggctc gccgcgtacc ccgccgccca cctctcggac ccacgacggt 480
 totogggeet cocceggege caacegeacg atgttcaact ttgacgeett ctaccaggee 540
cactatgggg aacaactgga gcgggaacgg cgcctgaggg cccggcggga ggcccttcgc 600 aaacggcagg agtatcggtc catgaaaggc ctccgctggg aggatacccg agacacggct 660 gccattttcc tcatctttc aatcttcatc atcatcggct tttatattta atcggagaga 720
 gaagggaagg ggagtgtccc cagccaaccc cccagaaacg gcctttttc ctgcctctga 780
 accettggee gttgatagte tacetttget gggateegaa ggaactgtae tececetgee 840 etcecegaee egeeeagett ageegatgae etgeacateg etceaetgtg gteeagaaaa 900
 ggaggcettt egatgtetga gaaagaggee ceaegetgta gagteeegaa ageeeaggag 960
 tgaagggggt teetggagte tetagggtge ttettecaga gtetgtette ttgettecag 1020
 atgtggtcaa cttctggaac actcgctgta gctttattgt ttagccccaa gcaagattta 1080
 telectectg eccegeatgt gtatggtggg cetetgtaac ettgaaatgt geaatgtgae 1140
 caattgttga ctaccaaaag aaaaggtctg gggttgtaaa aaaaaaa
 <210> 16
 <211> 740
 <212> DNA
 <213> Homo sapiens
<220>
 <221> misc_feature
<223> Incyte ID No: 2012055CB1
<400> 16
cgaggagtgg gtagcagcgc ctatgtgaag ttagctaatc tgagaaggcc cacttctggt 60
tccatggatg atggcggttg agcagatgcc aaaaaaggat tggtacagca tcctgggagc 120
agacccatct gcaaatatat cagacctaaa acaaaaatat caaaaactca tattaatgta 180
tcatccagat aaacaaagta cagatgtacc agcaggaaca gtggaggaat gtgtacagaa 240
gttcatcgaa attgatcaag catggaaaat tctaggaaat gaagagacaa aaagagagta 300
tgacctgcag cggtgtgaag atgatctaag aaatgtagga ccagtagatg ctcaagtata 360
tcttgaagaa atgtcttgga atgaagttac ttctcagaga cagtaaaatg gaatgaccaa 420
tggatcagag attetttaag tcaaagggca caagcattte aactteecag gaaaatgaca 480
cacttaaaat ttccacgatc aggagcctaa gtattgcacc gtattgcctc ctttgggcat 540
ctcacttcag catcttgttg gttcatgtat catttgtaaa catcaaacac acacacat 600
acccccatag atttaaaaaa acaacaacaa catggtgttg tgtttataga cttaagtcaa 660
gattettgaa atagtgtgae actagaagag aaagtateea gatgttgeat ttgataaata 720
gtctggcttt ctctaaagga
                                                                         740
<210> 17
<211> 1361
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 2238062CB1
<400> 17
tcgggcgcgg gggaggctcg gcggacctgc tgattgggaa ccgatatggc ggcgactctg 60
ggcagcgggg agcgctggac ggaagcttac attgacgcag ttagaagaaa caaataccca 120
gaagacacac ctcctgagag tcatgacccc tgtggctgct gtaactgcat gaaggcacaa 180
aaggaaaaga agtctgagaa tgagtggact cagacccggc agggtgaggg gaactccacg 240
tacagtgagg aacagctgct tggggtacaa aggatcaaga aatgcagaaa ttactatgaa 300
attctgggag tttctcgaga tgctagtgac gaagagctta agaaagctta cagaaaactc 360
gccctgaaat ttcaccctga caagaactgt gctcctggag caacagatgc tttcaaagca 420
ataggaaatg catttgcagt cctgagcaat cctgataaga gacttcgcta tgatgaatac 480
ggagatgaac aggtgacttt cactgcccct cgagccagac cttataatta ttacagggat 540
tttgaagetg acateactee agaagagetg ttcaaegtet tetttggagg acatttteet 600
acaggaaata ttcatatgtt ttcaaatgtg acagatgaca cttactatta ccgtcgacgg 660
caccgacatg agaggacaca gactcagaag gaggaggaag aagagaaacc tcagactaca 720
tattctgcat ttattcagct acttccagtt cttgtgattg tgattatatc tgtcattact 780
cagctgctgg ctactaatcc cccatatagt ctgttctata aatcgacctt gggctacacc 840
atttctagag aaactcagaa cctgcaggtg ccttactttg tggataaaaa ctttgacaag 900 gcctacagag gagcttctct gcatgacttg gagaaaacaa tagagaagga ttacattgat 960
tatatccaga ctagttgttg gaaggagaaa caacaaaagt cagagctgac aaatttggca 1020
```

j

IT

IU

```
ggattataca gagatgaacg attgaaacag aaagcagagt cgctgaaact tgaaaactgt 1080
  gagaaacttt ccaaactcat tggcctacgc agaggtggct gagaggataa tggtcctacg 1140
  cagggctggg gttttgctac ttgttcctat ttatgttcct gattccattt tataatacaa 1200
 aactaggtaa tgatgaacac tttactattt gctaacttcg ttggttgggc agagtggcag 1260 gagcatgggc acgagagcca gatgtgtctt cacaggatcc ttcctgggga gtggctccag 1320
 ggaccaggag tagttcatct aagttaaatt aatggcaagg c
 <210> 18
 <211> 4475
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc_feature
 <223> Incyte ID No: 1825012CB1
 <400> 18
 cgcctctcga aggaagtttg ctcttaattt cagagccggg ttcgccgtcg gatcaacctc 60
 caggagetag cagegggege ggacegggea gttteegege teageacagg cagetegegg 120 teatgggegg eteageetee ageeagetgg acgagggeaa gtgegettae ateegaggga 180 aaactgagge tgecateaaa aactteagte cetactacag tegteagtae tetgtggett 240
 tetgeaatea egtgegeact gaagtagaac agcaaagaga tttaaegtea eagttittga 300
 agaccaagee accattggeg eetggaacta tittgtatga agcagageta teacaattit 360
 ctgaagacat aaagaagtgg aaggagagat acgttgtagt taaaaatgat tatgctgtgg 420
 agagctatga gaataaagag gcctatcaga gaggagctgc tcctaaatgt cgaattcttc 480
 cagccggtgg caaggtgtta acctcagaag atgaatataa tctgttgtct gacaggcatt 540
 tcccagaccc tcttgcctcc agtgagaagg agaacactca gccctttgtg gtcctgccca 600 aggaattccc agtgtacctg tggcagccct tcttcagaca cggctacttc tgcttccacg 660
aggetgetga ccagaagagg tttagtgece tectgagtga etgegteagg cateteaate 720 atgattacat gaageagatg acatttgaag eccaageett tttagaaget gtgeaattet 780 tecgaeagga gaagggteae tatggtteet gggaaatgat eaetggggat gaaateeaga 840
 tectgagtaa eetggtgatg gaggagetee tgeecactet teagacagae etgetgeeta 900
agatgaaggg gaagaagaat gacagaaaga ggacgtggct tggtctcctc gaggaggcct 960 acaccctggt tcagcatcaa gttcagaag gattaagtgc cttgaaggag gaatgcagag 1020 ctctgacaaa gggcctggaa ggaacgatcc gttctgacat ggatcagatt gtgaactcaa 1080 agaactattt aattggaaag atcaaagcga tggtggccca gccggggggag aaaagctgct 1200
 tggagagtgt gcagccattc ctggcatcca tcctggagga gctcatggga ccagtgagct 1200
cgggattcag tgaagtacgt gtactetttg agaaagaggt gaatgaagtc agccagaact 1260 tecagaccac caaagacagt gtecagetaa aggagcatet agaccggett atgaatette 1320
cgctgcattc cgtgaagatg gaaccttgtt atactaaagt caacctgctt cacgagcgcc 1380
tgcaggatet caagageege ttcagattee eccacattga tetggtggtt cagaggacae 1440
agaactacat gcaggagcta atggagaatg cagtgttcac ttttgagcag ttgctttccc 1500
cacateteca aggagaggee tecaaaactg cagttgecat tgagaaggtt aaacteegag 1560
tettaaagca atatgattat gacagcagca ccateegaaa gaagatattt caagaggcae 1620
tagttcaaat cacacttccc actgtgcaga aggcactggc gtccacatgc aaaccagagc 1680
ttcagaaata cgagcagttc atctttgcag atcataccaa tatgattcac gttgaaaatg 1740
tctatgagga gattttacat cagatcctgc ttgatgaaac tctgaaagtg ataaaggaag 1800
ctgctatett gaagaaacae aacttatttg aagataacat ggccttgccc agtgaaagtg 1860
tgtccagctt aacagatcta aagcccccca cagggtcaaa ccaggccagc cctgccagga 1920
gagettetge cattetgeca ggagttetgg gtagtgagae ceteagtaac gaagtattee 1980 aggagteaga ggaagaagae cageetgagg teectagete gttggecaaa ggagaaagee 2040
tttctctccc tggcccaagc ccaccccag atgggactga gcaggtgatt atttcaagag 2100
tggatgaccc cgtggtgaat cctgtggcaa cagaggacac agcaggactc ccgggcacat 2160
geteateaga getggagttt ggagggaece ttgaggatga agaaceegee caggaagage 2220
cagaacccat cactgcctcg ggttctttga aggcgctcag aaagttgctg acagcgtccg 2280
tggaagtacc agtggactct gctccagtga tggaagaaga tacgaatggg gagagccacg 2340 ttccccaaga aaatgaagaa gaagaggaaa aagagcccag tcaggcagct gccatccacc 2400
ccgacaactg tgaagaaagt gaagtcagcg agagggaggc ccaacctccc tgtcccgagg 2460
cccatgggga ggagttgggg ggatttccag aggtaggcag cccagcctct ccgccagcca 2520 gtggagggct caccgaggag cccctggggc ccatggaggg ggagctccca ggagaggcct 2580 gcacactcac tgcccatgaa ggaagagggg gcaagtgtac cgaggaaggg gatgcctcac 2640
agcaagaggg ctgcacctta ggttctgacc ccatctgcct cagtgagagc caggtttctg 2700
aggaacaaga agagatggga gggcaaagca gcgcggccca ggccacggcc agtgtgaatg 2760
cagaggagat caaggtagcc cgtattcatg agtgtcagtg ggtggtggag gatgctccaa 2820
accoggatgt cotgotgtca cacaaagatg acgtgaagga gggagaaggt ggtcaggaga 2880 gtttcccaga gctgccctca gaggagtgaa agggacaatt tggctgaagt ctttctctga 2940
aaaaagccaa agggttatag gggtacactt aggggttgca tgcaagctgt taccaaaaa 3000
```

```
tttttaagta ttttcttaat ttgaataata aaaccagagg aaatgcatac agggcatgag 3060
 caactgagge aaacetttgt ggacatgaat tgttctacga tgaatttttg ctttagtatt 3120
 ttaataagaa ttacaaagac aatggcatac ttggggtgag agggagctga ggatgtctga 3180
 ggagggaata gtattgcagg gaagactgag aaaacagtag gatgacagtt ttgagtatac 3240 tctgcacttt tcaattgtgc aatcttcttg tgcactttaa ggctttttaa ttttgtttga 3300 gaatgcaaat gtatactgta agtctacctt tactatctac tatgcctact tcaccatctc 3360
 ttaaggactc ggcatttgtc cacagtcaga ctgcaagaga gggtaggtca tgaacagtca 3420
 cccatgctgg ctgtagcccc cacagaggca atcatgccca atagattcaa gagaagctaa 3480
 gcggaaatgg agggcggaag gtgtgatctg tgggactgtc tgggcctgtt actcatcctg 3540 ctatcaattt cttattaatt aatcttgatg attcttatta attaatcaca tttgcaggaa 3600
 attcagatga ggcaagaaa ttttattggc ctgggtaaga ctgaaagcat tccaaattag 3660
 gcttagactg tgcaaagggc ttagctaagt tatcgagctt aaaacccgtc aattaaacaa 3720
 acattatttg aacagttact gcatgccacg cactgtgttg ggcttagtaa taaaaaaaag 3780
 aaaagataag tgettgttet ageataaatt aaaaggteea agggaattta atetggaaga 3840
gaacatatgc caatttttaa actatgacag ctttttttt tctctttcca ttcaaatagt 3900 cctggttcat tcccagaagg gcacaaaatg aatgaataaa taaataaatg aataaagaca 3960
 aaagccaagg tgtatgctct caagttccaa agatgttatc aaaagctgaa atcattigtt 4020
 tggtcattca gcaagctaat tgagtctctg ttatatacca agcactgggg ataccatggc 4080
 gaaaaacaac tttgttcctt cctcctagaa cttacatttt aatggaaata gacaaaacac 4140
 atcttcttaa cggatggtga cctataacca ttaatgttga aaatggaaga gacttgcttc 4200
 caaaagatta aaaggagttg ttcttttctc cttcagaaaa ataccagatc atttcctaaa 4260
 atctccagte ccaagtatta categtggtt teeeteeeg actttttatt ttattttatt 4320
 ctattttttt gagatggagt ctcactctgt cgccaaggct ggagtgcagt ggtgtgatct 4380
 eggeteactg caaceteege etectgggtt caggagttte teetetgtea gegteecaag 4440
 tagctggaat tacagccatg cggcaccatt cccgg
                                                                               4475
 <210> 19
<211> 636
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1906464CB1
<400> 19
gaaccgagcg agcggagctg agctcgggta ggccgcgcga ggtccctcct ctccgggcgt 60
ecgtgegeet agetetgege tgggageete gegeeetttg acageagtta gttgetgaet 120
cggatgcaga gagtcggtaa caccttctcc aacgagagcc gggtggcatc ccggtgtccc 180
agcgtgggcc ttgctgaacg gaaccgggtg gccacaatgc cggtgcggct gctcagggac 240 agtccagcgg ctcaggagga caatgaccat gccagagacg gtttccaaat gaagctggat 300
gcccacggct tcgccccgga ggaactggtg gtgcaggtgg atggccaatg gctgatggtg 360
accggacage agcaactgga cgtcagggac ccggaaaggg tcagttaccg catgtcacag 420
aaggtgcacc ggaaaatgct cccgtccaac ctgagtccta ccgccatgac ctgctgcctg 480
accecetecg ggcagetgtg ggtcagagge cagtgtgtgg cgctggccct ccctgaagcc 540
caaacaggac cgtccccgag actcgggagc ctcggctcta aggcttccaa cctgacccgg 600
taaacaaacg acgcgatgtg cagcaaaaaa aaaaaa
                                                                               636
<210> 20
<211> 1090
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1979146CB1
gcttttcccc acgagtgacc acggctagat aggccgccgg ccagatgtgg cgggggagag 60
ccggggcttt gctccgggtg tggggggtttt ggccgacagg ggttcccaga aggagaccgc 120
taagctgcga tgctgcgtcg caggcgggaa gcaattatcc ccgctgttgg aactgcggcg 180
gcccatgggg ccccgggcgg gaggacaggt tettetgccc acagtgccga gcgctgcagg 240
cacctgaccc cactcgagac tacttcagcc ttatggactg caaccgttcc ttcagagttg 300
atacagegaa egtecageae aggtaceage aactgeageg tettgteeae eeagatttet 360 teagecagag gteteagaet gaaaaggaet teteagagaa geattegaee etggtgaatg 420
atgcctataa gaccctcctg gccccctga gcagaggact gtaccttcta aagctccatg 480
gaatagagat teetgaaagg acagattatg aaatggacag gcaatteete atagaaataa 540
```

M

Ш

WO 01/09178 PCT/US00/21313

```
tggaaatcaa tgaaaaactc gcagaagctg aaagtgaagc tgccatgaaa gagattgaat 600 ccattgtcaa agctaaacag aaagaattta ctgacaatgt gagcagtgct tttgaacaag 660
 atgactttga agaagccaag gaaattttga caaagatgag atacttttca aatatagaag 720
 aaaagatcaa gttaaagaag attccccttt aattgtggat agtttaaagt ttaaaaaata 780 aagttcttgc tgggcacagt ggctcacacc tgtaatccca gcactttggg aggctgaggt 840 gggtggatga caaggtcagg agttcaagac cagcttggcc aacatagtga aaccccgtct 900
 ctgctgaaaa tacaaaaatt agccgggcat ggtggcgcgt gcctgtaatc ccagctactt 960
 ggtaggccga ggcaggagaa tcgcttaaac ccgtgaggtg gaggttgcag tgagcagaga 1020
 tcacgcaact gcactccagc ttgggcaaca gagtgagctt aatcttgaaa aataaataaa 1080
 tgaaaatgat
                                                                            1090
 <210> 21
 <211> 1447
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc_feature
 <223> Incyte ID No: 5680480CB1
 <400> 21
cgaaaaagaa gcagtcctgg gttgtacccg gcgcacgtgg gagcggctgc ttcctccggg 60
gtcgtatctc cgcccggcat ggggctgctg gacctttgcg aggaagtgtt cggcaccgcc 120
gacctttacc gggtgctggg cgtgcgacgc gaggcctccg acggcgaggt ccgacgaggc 180
taccacaagg tgtccctgca ggtacacccg gaccgggtgg gtgagggcga caaggaggac 240
gccaccegce gettecagat cetgggaaaa gtetatteeg tteteagtga cagagaacag 300
agagcagtgt acgatgagca gggaacagtg gacgaggact ctcctgtgct cacccaagac 360
cgagactggg aggcgtattg gcggctactc tttaaaaaga tatctttaga ggacattcaa 420
gcttttgaaa agacatacaa aggttcggaa gaagagctgg ctgatattaa gcaggcctat 480
ctggacttca agggtgacat ggatcagatc atggagtctg tgctttgcgt gcagtacaca 540
gaggaaccca ggataaggaa tatcattcag caagctattg acgccggaga ggtcccatcc 600
tataatgeet tigteaaaga ategaaacaa aagatgaatg caaggaaaag gagggeteag 660
gaagaggcca aagaagcaga aatgagcaga aaggagttgg ggcttgatga aggcgtggat 720
agcctgaagg cagccattca gagcagacaa aaggatcggc aaaaggaaat ggacaatttt 780
ctggctcaga tggaagcaaa gtactgcaaa tcttccaaag gaggagggaa aaaatctgct 840
ctcaagaaag aaaagaaata atggaatttt tctcttcaaa ggtccttagg tgtaaattga 900
tgccatcgta ggcaaggtgc aggcaggatt tgaaggcaaa agtcaattca gctcttgaga 960
aaaggtgtct ttccagcctg aatttttcag attgactaga ccaagcagaa tctctcaacc 1020
tgatcttagt atttcctaga aagcacttga cattgtgtga ggtctcacct gaaggaactt 1080
ggtggtgaca tttgggaggg tggagggagg cagtgtcctt cctgacagca cttgcctcca 1140
tggatcttct gtacacagaa ctcttatcta ggatgtggtt ctgttcatgc tgctttctgc 1200 gatgtgcgtg tctgttagaa taggctctct acccagctag aacaccttcc agacacttgc 1260
tggacageta tettecacat actteccagt ttacatttgg tettaatgat ettgaataga 1320
tectetette attttaetea geeaggtttt gtaetgatgt acaggtgtta aattaettea 1380
agcatttttg taagaggtgt atataattca ataaaaaagg taaaacatga tgattaaaaa 1440
aaaaaaa
<210> 22
<211> 1147
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<223> Incyte ID No: 1459372CB1
<400> 22
gccttgggtc aagcagaata ttaataggca ggggaatgca cctgtagcta gtgggcgcta 60
ctgccagcct gaagaggaag tggctcgact cttgaccatg gctggggttc ctgaggatga 120 gctaaaccct ttccatgtac tgggggttga ggccacagca tcagatgttg aactgaagaa 180
ggcctataga cagctggcag tgatggttca tcctgacaaa aatcatcatc cccgggctga 240
ggaggccttc aaggttttgc gagcagcttg ggacattgtc agcaatgctg aaaagcgaaa 300
gtccaagctg caagatgacc tcaaggaggc aatgaatact atgatgtgta gccgatgcca 420
aggaaagcat aggaggtttg aaatggaccg ggaacctaag agtgccagat actgtgctga 480 gtgtaatagg ctgcatcctg ctgaggaagg agacttttgg gcagagtcaa gcatgttggg 540
```

cctcaagatc acctactttg cactgatgga tggaaaggtg tatgacatca cagagtgggc 600

